COBRA

User Manual

Cobra Alpha HD User Manual

Ver 1.0

FCC Compliance Statement
Model Name:
COBRA-ALPHA Series (COBRA-ALPHA-4, COBRA-ALPHA-H8)

This device complies with Part 15 of the FCC Rules. Operation is Subject to the following two conductions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operations.

■ WARNING

- Unauthorized reproduction of all or part of this manual is strictly prohibited.
- The figures in this manual are for illustration purposes only (may differ from the actual product).
- The specifications and design of the product are subject to change without prior notice for purposes of quality improvement.

■ CAUTIONS

To get the best use out of the product, be sure to read the cautions before using the product. For safety, please take note of the following.

Instructions before using the product

1 To prevent electric shock when installing, moving, or opening the DVR and peripheral devices, connect and disconnect the cables as instructed. All cables must be connected to grounded power outlets.
2 If the product is installed near a power outlet, make sure it can be unplugged easily.
3 Do not use the DVR in water or in wet places.
4 Keep the plastic packing materials used for the DVR or other peripheral devices out of reach of children (may cause suffocation).

Installation Environment of the DVR

1 Maintain the following conditions: operating temperature of 5˚C ~ 40˚C; operating humidity of 10% ~ 80%.
2 Install the DVR in a safe place that is free from external vibration.
3 Install the DVR in a well-ventilated place.
4 To protect the hard disk from data loss and breakdown, install the DVR away from magnetic materials.
5 When using a rack other than the standard one, use a separate table with sufficient spacing, i.e., 60cm from the floor, 50cm from the ceiling, and 20cm from the side and back walls and other objects.

Safety Notes on the DVR

1 When installing additional boards and HDD, separate the power cable and turn OFF power supplied to the DVR completely..
2 Keep the product away from heat-generating devices such as heaters.
3 Do not use a damaged power cord.
4 To prevent problems due to magnetic interference and electric surge, use only grounded cables and power outlets.
5 If the power cord is connected, do not touch the power unit. If the power cord is connected, electric current is still flowing internally even after the switch is turned OFF.
6 Do not place a heavy object on top of the product.
7 Do not drop a conductive object in the ventilation holes.
8 Allot sufficient space for system cabling.
9 Use only the parts indicated in the manual. Do not disassemble, repair, or modify the product without permission.
10 Incorrect system setup may cause malfunction.
11 Shut down the system normally as instructed in the manual.

Safety Notes on the Lithium Battery

1 Replace lithium batteries as instructed to avoid danger.
2 Dispose used lithium batteries properly.

【Warnings and Cautions are indicated as follows】

	Possible injury or product damage
	Risk of minor injury or product damage

	Cautions for the usage of the product
	Information for the usage of the product

CONTENTS

C/O/N/T/E/N/T/S

Chapter 1. Introduction 6
1 - 1 COBRA-ALPHA series Major Features 6
1 - 2 About the Product 7
1 - 3 Components 7
Chapter 2. Installation and Connection 8
1 - 4 COBRA-ALPHA Series Name and Features of each part 8
1 - 4 - 1 COBRA-ALPHA Series Front Panel 8
1 - 4 - 2 COBRA-ALPHA-4 Channel Rear Panel 8
1 - 4 - 3 COBRA-ALPHA-H8 Channel Rear Panel 8
1 - 5 Installation and Connection 9
1 - 5 - 1 Basic Connection 9
1 - 5 - 2 Connection of Other Devices 10
Chapter 3. Operation and Setup Tools 11
1 - 6 COBRA-ALPHA series Front Panel Button 11
1 - 6 - 1 COBRA-ALPHA series Remote Controller 12
1 - 6 - 2 Mouse 12
Chapter 4. DVR Operation Setup 13
1 - 7 COBRA-ALPHA Series Storage Installation 13
1 - 8 Power ON. 15
1 - 9 Storage Setup 15
1 - 1 0 Recording Setup 16
1 - 1 1 Date/Time Setup 16
Chapter 5. System Operation 16
1 - 1 2 Starting System and Exiting the System 16
1 - 1 3 Monitoring 16
1 - 1 3 - 1 Screen Division and Auto Sequence 16
1 - 1 3 - 2 Zoom (x16) 17
1 - 1 4 System Login 17
1 - 1 4 - 1 User Account and Authorization 17
1 - 1 4 - 2 Login 17
1 - 1 4 - 3 Logout 17
1 - 1 5 System Information View and Display Setup Change 18
1 - 1 6 System Information 19
1 - 1 7 Display Setup 20
1 - 1 8 Audio, Relay, Spot control 21
1 - 1 9 Search 21
1 - 1 9 - 1 Calendar Search 22
1 - 1 9 - 2 Time Index 22
1 - 1 9 - 3 List All 22
1 - 2 0 Log Viewer 23
1 - 2 1 Playback 24
1 - 2 1 - 1 Playback status and Playback Speed Control 24

1-2 1-2 Smart Search 24
1-2 1-3 MULTI TIME 24
1-2 1-4 MULTI DAY 24
1-2 1-5 Event 25
1-2 1-6 Panorama Playback 25
1-2 2 Backup 25
1-2 3 Snapshot 25
1-2 4 Log Backup 26
1-2 5 Setup Backup 26
1-2 6 PTZ Camera Control 26
Chapter 6. Setup 27
1-2 7 Time 27
1-2 8 Camera 28
1-2 8-1 Camera 28
1-2 8-2 PTZ 28
1-2 8-3 Event Source 28
1-2 8-4 Relay 28
1-2 9 Recording 28
1-2 9-1 schedule (schedule1 - schedule4) 29
1-2 9-2 Event 29
1-2 9-3 Recording 29
1-2 9-4 Alarm 29
1-2 9-5 Duration 29
1-2 9-6 Log 30
1-3 0 Schedule 30
1-3 0-1 Holiday setup 30
1-3 1 Storage 31
1-3 1-1 Max. Recording Days 31
1-3 1-2 HDD Overwrite 31
1-3 1-3 Local Storage Management 31
1-3 2 Network 32
1-3 2-1 Ethernet 33
1-3 2-2 DDNS 33
1-3 2-3 Port 33
1-3 2-4 E-mail 33
1-3 2-5 Bandwidth 33
1-3 2-6 Callback 33
1-3 3 System 33
A/P/P/E/N/D/I/X 35
(1) Recommended HDD 35
(2) Recommended PTZ Camera Protocol. 35
(3) Recommended USB2.0 Device 35

Figure List

[Figure 2-1. COBRA-ALPHA-H8 Basic Connection and Device Connection] 9
[Figure 2-3. Terminal Block Description] 10
[Figure 4-4. Menu Window] 15
[Figure 4-5. Storage Device New Tab menu] 15
[Figure 5-6. Recording Status Window] 18
[Figure 5-7. DVR Infomation] 19
[Figure5-8. Search Window] 22
[Figure 5-9. Log Viewer] 23
[Figure 5-10. Playback Screen] 24
[Figure 5-11. Playback Status and Control bar] 24
[Figure 5-12. Backup] 25
[Figure 6-13. Date and Time Window] 27
[Figure 6-14. Camera Window] 28
[Figure 6-15. Recording Window] 29
[Figure 6-16. Pre/post alarm] 30
[Figure 6-17. Schedule Window] 30
[Figure 6-18. Storage Window] 31
[Figure 6-19. Ethernet Window] 33
[Figure 6-20. System Setup Window] 33

Chapter 1. Introduction

1 - 1 COBRA-ALPHA series Major Features

		COBRA-ALPHA-H8 (HD-SDI Hybrid)	COBRA-ALPHA-4
System		Reliable Standalone DVR	
Channel type		4 BNC - HD-SDI, 4 BNC - SD Analog	4 BNC - HD-SDI
OS		Embedded Linux - Built in Flash Memory	
Video Input		8 BNC	4 BNC
Video output	**Monitor**	1 VGA, 1 HDMI, 1 BNC	1 VGA, 1 HDMI
	Spot	1 BNC	N/A
Audio Input		Line Input : 4 RCA	
Audio Output		Line Output : 1 RCA	
Compression Format		[Video: Standard H.264)] / [Audio: G.711]	
Recording Speed		Max. 45fps@720p	Max.20fps@1080p 45fps@720p
Recording Resolution		Max. 720p	Max. 1080p
Recording Mode		Automatic, Continuous, Manual, Events(Sensor and Motion, Sound)/Schedule Recording	
Storage	**Internal**	Max. 2HDD, Max. 4TB, 1 DVD	
	External	1 eSATA	
Video Output Resolution		HDMI : Full HD(1080p), HD(1080i), WSXGA,SXGA VGA : WSXGA (1680x1050), SXGA(1280 x 1024), TV : SDTV(720 x 480/576) (Only for COBRA-ALPHA-H8)	
Sensor Input		4 Sensors	
Relay/TTL Output		[1ea NC/NO]	
Backup & Copy Access		DVD-RW, USB2.0, Network	
Network Access		Various Network Interface (Ethernet 10/100/1000, ADSL, Cable modem)	
PTZ Access		2ea of RS485	
System Operation & Adjustment		Front Button, Mouse, IR Remote Controller, Keyboard Controller, Network	
System Upgrade		USB2.0 Memory Stick, Network	
Network		System Automation (Controlled by VMS)	
		NTP Supported	
		VMS / WEB Brower / PDA / Smart Phone	
Others		18Languages Supported, Automatic E-mail	
		Power [12V/5A] / Max. Power Consumption[60W] / Operating Temperature [5 ~ 40℃]	
		Weight without HDD [4kg] / Dimension [430 x 86 x 270mm]	

1 - 2 About the Product

As a digital image monitoring equipment that can display images inputted from up to 16/8 cameras, **COBRA-ALPHA -Series** digitally records high-quality images using various video recording modes and displays them as clean quality images.
For users' convenience, front panel button, remote controller, and mouse are provided. Powerful network functions including remote monitoring and remote system setup modification are also supported.

1 - 3 Components

Please check the components after unpacking the product.

- Remote controller
- CD (VMS, VMS Manual, PDA Viewer Software)
- AAA 1.5V Batteries 2es
- Adapter (12VDC/ 5A)
- User Manual
- Rack Mounting Handle

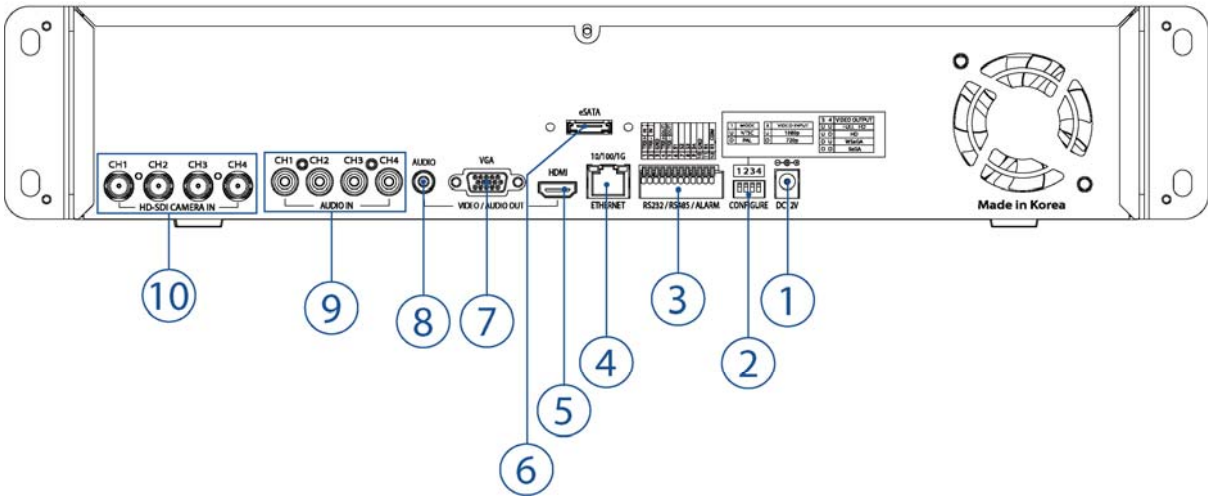
Chapter 2. Installation and Connection

1 - 4 COBRA-ALPHA Series Name and Features of each part

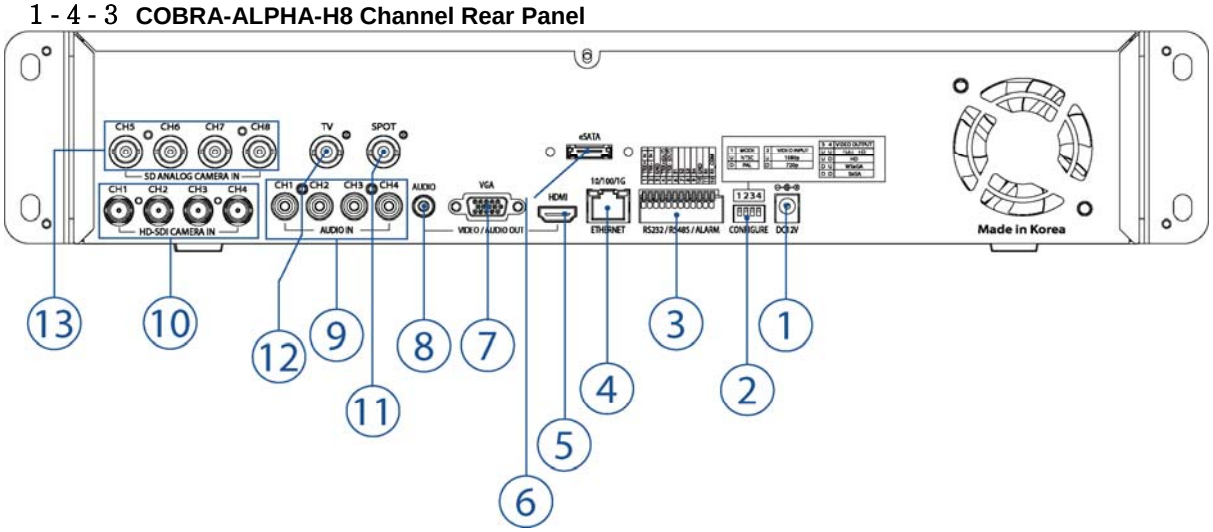
COBRA-ALPHA series has buttons on the front panel and various interfaces on the rear panel. Also, it has rack handles of the left and right side for the convenience of the standard rack installation.

1 - 4 - 1 COBRA-ALPHA Series Front Panel

1 - 4 - 2 COBRA-ALPHA-4 Channel Rear Panel



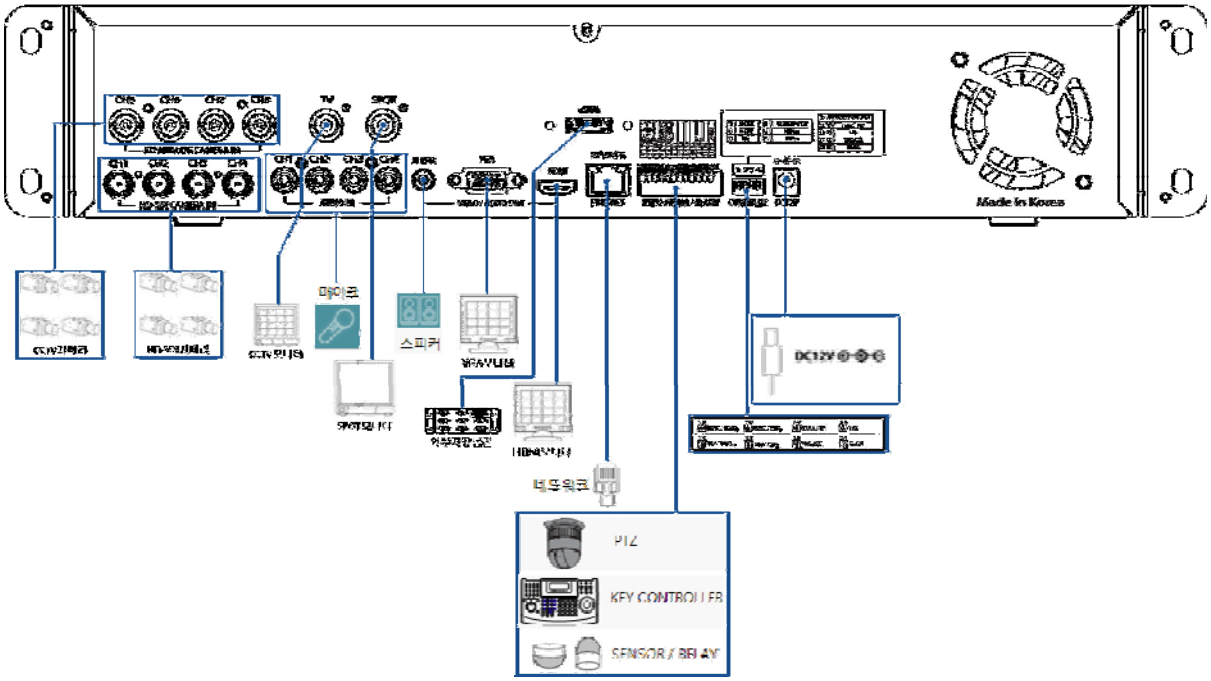
1 - 4 - 3 COBRA-ALPHA-H8 Channel Rear Panel



No.	Name	Function	Type
1	DC-IN Power	100~240V, 50/60 Hz, 5A	
2	CONFIGURE	Select the type of video input and output	Switch
3	RS485	PTZ Camera Control Connection	Termnal Block

	DIO	Sensor/ Relay Connection	
4	**Ethernet**	Network connection(ADSL, Cable Modem, Ethernet 10/100/1000 Base-T)	RJ-45
5	**HDMI**	HDMI Video output	HDMI type-C
6	**eSATA**	External SATA Storage	eSATA
7	**VGA-OUT**	VGA Monitor or LCD Monitor connection	D-SUB 15P
8	**AUDIO OUT**	Audio output connection (Line Only Output)	RCA
9	**AUDIO IN**	Audio input connection (Line Only Input)	RCA
10	**CAMERA IN**	HD-SDI Camera connection	BNC
11	**SPOT**	SPOT Video output / CCTV monitor connection	BNC
12	**TV**	CCTV Monitor Connection(Divided Screen)	BNC
13	**CAMERA IN**	SD Camera connection	BNC

1 - 5 Installation and Connection



[Figure 2-1. COBRA-ALPHA-H8 Basic Connection and Device Connection]

1 - 5 - 1 Basic Connection

By referring to above **[Figure 2-1],** Connect the CCTV camera, CCTV monitor (or VGA monitor), and USB mouse to the DVR and set up CONFIG SWITCH.

	Connecting Device	DVR Terminal
1	CCTV camera	Rear Panel Video Input
2	CCTV monitor	Rear Panel TV
3	VGA Monitor / LCD Monitor	Rear Panel VGA-OUT
4	Mouse	**COBRA-ALPHA series:** on front panel
5	CONFIG SWITCH	Rear Panel NTSC/PAL or VGA/TV Setup

Refer to the CONFIG SWITCH description as below.

1. The input video type must be either NTSC or PAL; these two types must not be used together.
2. Select the input video format (NTSC/PAL) using the CONFIG switch on the rear side of the product.
3. Should select one between 1080p and 720p for input resolution. These two types must not be used together. 8Ch DVR is setup 720P regardless of video input.

1	MODE
U	NTSC
D	PAL

2	VIDEO INPUT
U	1080p
D	720p

3	4	VIDEO OUTPUT
U	U	FULL HD
U	D	HD
D	U	WSxGA
D	D	SxGA

1 - 5 - 2 Connection of Other Devices

Connect the PTZ controller cable, audio in/output, network and sensors as below.

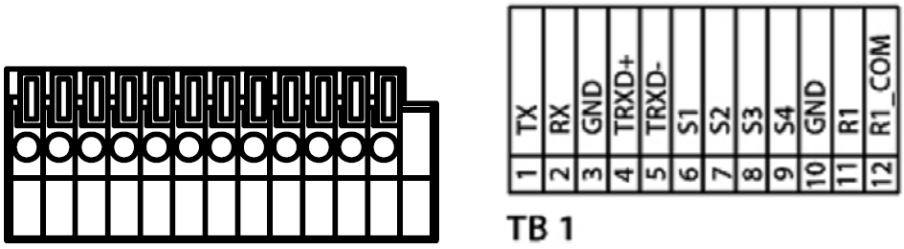
	Connecting Device	DVR Terminal
1	SPOT Monitor(CCTV Monitor)	Rear Panel SPOT
2	Mike / Speaker	Rear Panel Audio Input / Audio Output
3	LAN Cable	Rear Panel Ethernet
4	PTZ Camera	Rear Panel Terminal Block
5	Sensor / Relay / TTL OUTPUT	Rear Panel Terminal Block)
6	Key controller	Rear Panel Terminal Block

1) SPOT Monitor
Connect Spot Monitor to the spot connector on the rear panel.

2) Audio In/Output
Audio supports 4 inputs and 1 output.

3) Terminal Block

Terminal Block on the rear panel is for the connections of PTZ / Sensor / Relay.



[Figure 2-2. Terminal Block Description]

4) PTZ Camera/Keyboard Controller
Connect PTZ camera to TRX+(No.4) and TRX-(No.5) and GND(No.10). You may refer to APPENDIX for supported PTZ camera list in this manual. Keyboard Controller has same connection way of PTZ camera.

Caution PTZ Camera may not be working properly if GND is not connected.

5) Sensor/Relay
Connect Sensor/Relay to Terminal Block directly.

(1) Sensor Connection

① Connect Sensors to the Terminal Block S1 ~ S4.

② Each input terminal may be connected regardless of the channel number.

	Sensor has the type of NC(Normal Close) and NO(Normal Open). **For Setup {Menu} → {Setup} → {Action} → {Event} → {Sensor Type}** **NC(Normal Close)** : Normally closed; opens when a signal is received. **NO(Normal Open)** : Normally opened: closed when a signal is received.

(2) Relay Connection

① Outputs alarm signals to external devices such as siren by relaying them to these external devices.

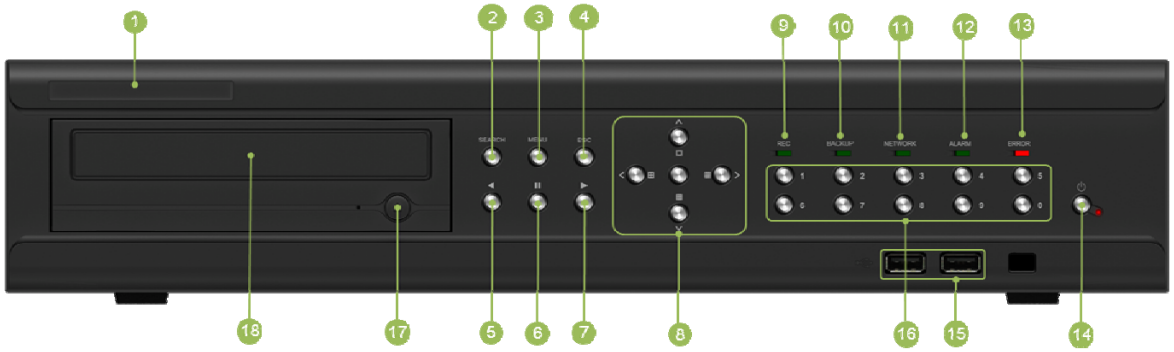
② Connect Relay to R1 of Terminal Block (TB1).

	Relay has the type of NC(Normal Close) and NO(Normal Open). For Setup **{Menu} → {Setup} → {Action} → {Alarm} → {Relay Type}** **NC(Normal Close)** : Normally closed; opens when a signal is received. **NO(Normal Open)** : Normally opened: closed when a signal is received.

Chapter 3. Operation and Setup Tools

COBRA-ALPHA series are conveniently operated by Front Buttons, Remote Controller and mouse.

1 - 6 COBRA-ALPHA series Front Panel Button



No	Name	Feature
1	**LABEL**	Brand Name and Model Name
2	**SEARCH**	Search Recorded Images.
3	**MENU**	Support various modes
4	**ESC**	Exit the current menu or selects the upper menu.
5	**Reverse Play / Fast Reverse & PLAY**	Backward Playback/Rewind (in Playback mode) Relay Control (in Monitoring mode)
6	**Pause & LOCK**	Pause (in Playback mode) Lock (in Monitoring mode)
7	**Forward Play / Fast Forward & PLAY**	Playback/Fast Forward (in Playback mode) Play back (in Monitoring mode)
8	**MOVE & DISPLAY & Select**	Moves from one category to another or changes the display mode.
9	**RECORD LED**	Green LED turned on upon HDD operation.
10	**BACKUP LED**	Green LED turned on upon backup.

11	**NETWORK LED**	Green LED turned ON during remote access.
12	**ALARM LED**	Green LED turned on upon the occurrence of event or motion.
13	**ERROR LED**	RED LED turned on upon fan defect or recording interruption.
14	**POWER / POWER LED**	Turn the system power ON or OFF.
15	**USB Port**	Connection port to the USB mouse and USB memory stick
16	**Number**	Channel Selection and Number Input
17	**Eject**	CD, DVD Media
18	**ODD**	CD-RW, DVD-RW

1 - 6 - 1 COBRA-ALPHA series Remote Controller

a) Basic Control Button

	POWER	Turn the system power ON or OFF.
	ESC	Exit the current menu or select the upper menu
	MENU	To see the Menu
	MODE	None usable
	SELECT	Select the category or execute automatic screen conversion
	MOVE	Move from one category to another or change the display mode

b) Search Button (Playback Mode)

	Reverse Play	Reverse Play
	Play	Play
	Reverse Frame by Frame	Reverse play frame by frame
	Pause	Pause
	Frame by Frame	Play frame by frame

1 - 6 - 2 Mouse

Operate the system by using Mouse. The mouse pointer will be shown when a Mouse is connected to USB port on the front panel.

	Mouse control supports the features as below.	
	Click on the right button	Monitoring Mode / Move from Play Mode to Monitoring Menu / Pop up or remove Play Menu. Show sub-folder of the certain Menu window.
	Click on the left button	Select Menu.
	Double click on the left	Select Menu.

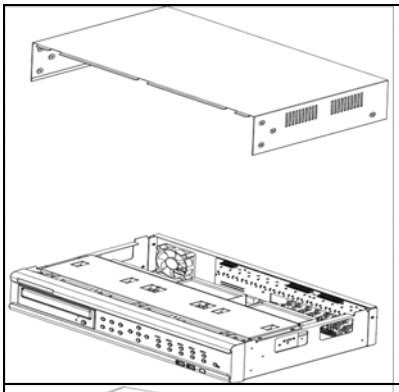
	button	
	Drag the left button	Move a certain window.

Chapter 4. DVR Operation Setup

1 - 7 COBRA-ALPHA Series Storage Installation

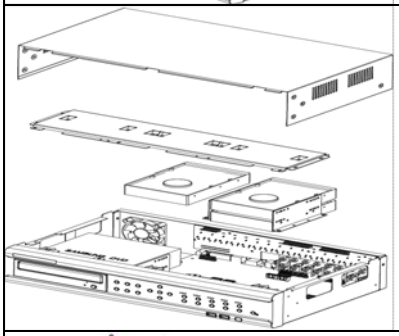
※ The recommended HDD specification are shown below.

Type	Size	Capacity	Buffer	RPM
SATA I, II	3.5“ 1, 2 Flat	Max. 2TB	Over 8MB	Over 7200

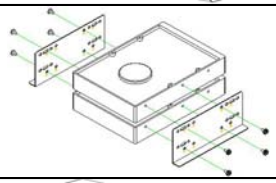


1) Using a screw driver, unscrew and take off the top case of the product.

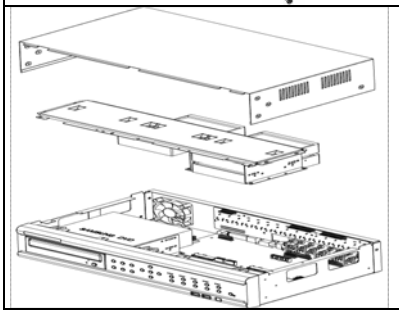
Caution	1) Normal termination of the system and fully unplugged power code are required before conducting HDD installation. 2) Touch a grounded metal substance or ground yourself before installing HDD in order to reduce static electricity. Static electricity may cause a malfunction of the product. 3) After installing HDD, Do not connect to power supply with the top case opened. The top case must be covered before usage.



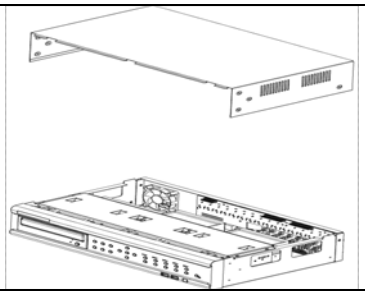
2) Unscrew and separate the HDD bay.
Align screw holes and screw and fix additional HDD onto HDD bay.



3) As per the photo, Screw the HDD bay and HDD and DVD



4) As per the photo, Screw the HDD bay and HDD and DVD

	5) Connect the power cable and data cable to HDD. Reassemble the top case by reversing 1) to finalizing HDD installation.

1 - 8 Power ON.

① Check the adapter (12VDC/3.5A) and connect the power.

② Booting will be initialized after pressing the power button on the front panel.

③ Menu widow pops up by clicking the right button of the mouse or pressing [MENU] button in the front panel as shown below.

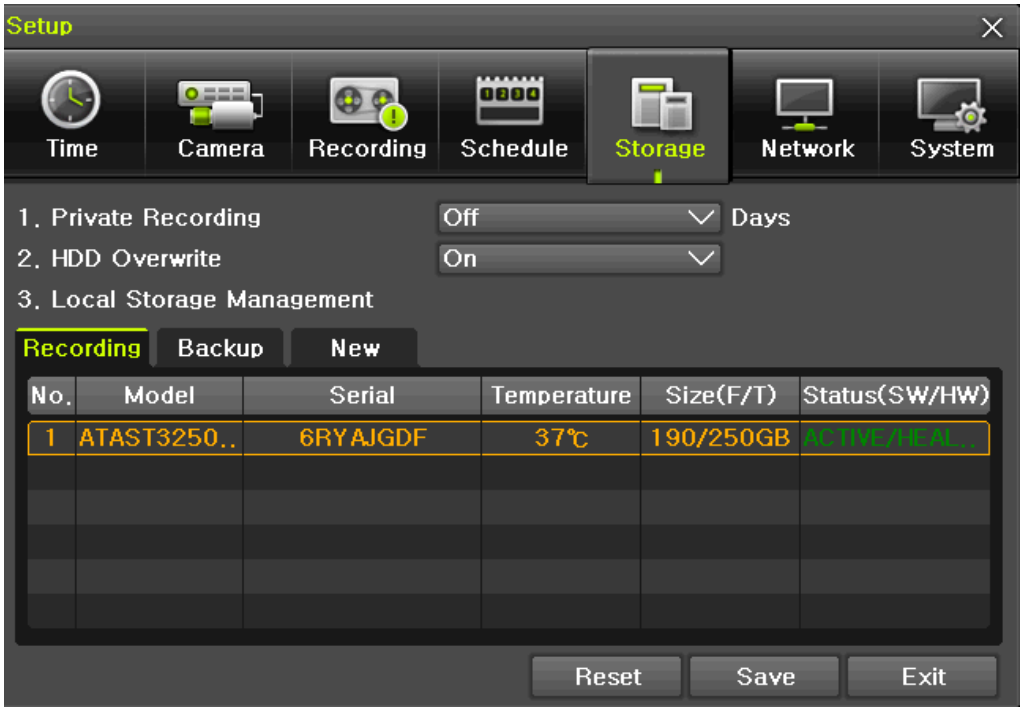
> Default ID and PW is as below
> **[ID: Local Admin, PW: 00000]**

[Figure 4-3. Menu Window]

1 - 9 Storage Setup

① **{Menu} → {Setup} → {Storage} → {Local Storage Management} → {New}**

② Select the HDD on New tap and then select Recording-Init.



[Figure 4-4. Storage Device New Tab menu]

③ **{Recording-Init} means that it is initializing for recording**.
④ After initializing done, HDD on New tap will be moved to Recording tap.

{Recording-Init} procedure may take time.
Refer to **[6-4 Storage]** for better understanding about storage.

1-10 Recording Setup

① {Menu} → {Setup} → {Action} → {Recording}
② Setup for [Recording Resolution]/[Recording Quality]/[Recording Speed]/[Audio].

1-11 Date/Time Setup

① {Menu} → {Setup} → {Time}
② Setup for time

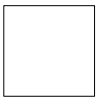
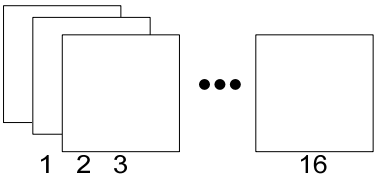
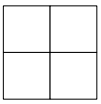
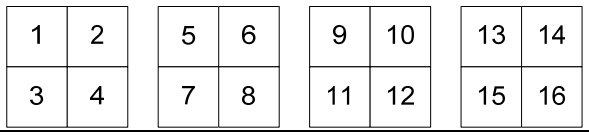
Chapter 5. System Operation

1-12 Starting System and Exiting the System

① Press the power button with the power connected.
② All channels connected to cameras will be displayed after booting is completed.
③ The system will be terminated after authentication is completed,

1-13 Monitoring

1-13-1 Screen Division and Auto Sequence

<table>
<tr><td> 
Full Screen (16 groups)</td><td> 
1 2 3 ••• 16</td></tr>
<tr><td colspan="2">Use the Full Screen mode.
To view a certain channel, select the desired channel using the numeric buttons.</td></tr>
<tr><td> 
4Sub-Screen (4 groups)</td><td> 
1 2 / 3 4 | 5 6 / 7 8 | 9 10 / 11 12 | 13 14 / 15 16</td></tr>
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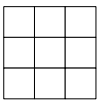
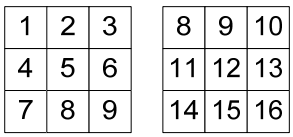
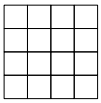
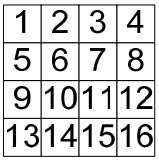
<tr><td> 
9Sub-Screen (2 groups)</td><td> 
1 2 3 / 4 5 6 / 7 8 9 | 8 9 10 / 11 12 13 / 14 15 16</td></tr>
<tr><td colspan="2">Use the 9 Sub-Screen button.</td></tr>
<tr><td> 
16Sub-Screen(1 group)</td><td> 
1 2 3 4 / 5 6 7 8 / 9 10 11 12 / 13 14 15 16</td></tr>
</table>

Use the 16 Sub-Screen button.
※ The user can view an image on full screen by double-clicking the 4/9/16 Sub-Screen mode. Double-click any part of the screen to return to the previous mode.
※ Auto Sequence Auto Sequence is to rotate images at an interval of the certain time in 1/4/9 Sub-Screen Mode. It changes to Auto Sequence Mode if you select **{Menu} → {Miscellaneous} → {Display Mode}→{Sequence}** in 1/4/9 Sub-Screen Mode. Using the Up/Down button, the user can select the interval from 1 second to 10 seconds (to set the interval, however, multiple cameras should be connected).

1-1 3-2 Zoom (x16)

Zoom in & out for specific zone on live display.

① Move to the Zoom mode by selecting the icon on the status bar thru Mouse.

② Control the Zoom by using the up/down buttons or Mouse.

③ Menu for zoom will be disappeared after pressing ESC button or the left button of the Mouse.

1-1 4 System Login

1-1 4-1 User Account and Authorization

Local Admin	The local administrator has all authorities. (But, remote access is not available) **Default password is [00000]**
User	Up to 15 users are allowed. Each user can access the functions depending on the given authorities. For Authorization Setup, Move to **{Monitoring Menu} → {Setup} → {System}→ {4. User Registration}.**

1-1 4-2 Login

For security purpose, user must log in first.

① Select **{Menu} → {Login}** on the live display.

② Password for English can be shown after selecting the space of password.

1-1 4-3 Logout

After logout, user can't use menu.

① Select **{Menu} → {Logout}** on the live display.

1-1 5 System Information View and Display Setup Change

Audio/Recording Status/Channel Title/Connection Indicator/Time/HDD status are displayed as shown below.

[Figure 5-5. Recording Status Window]

※ Recording Event / Recording mode display ※		
Recording Event	M	Motion recording
	S	Sensor recording
	A	Audio recording
Recording Mode	V	Video recording
	A	Audio recording

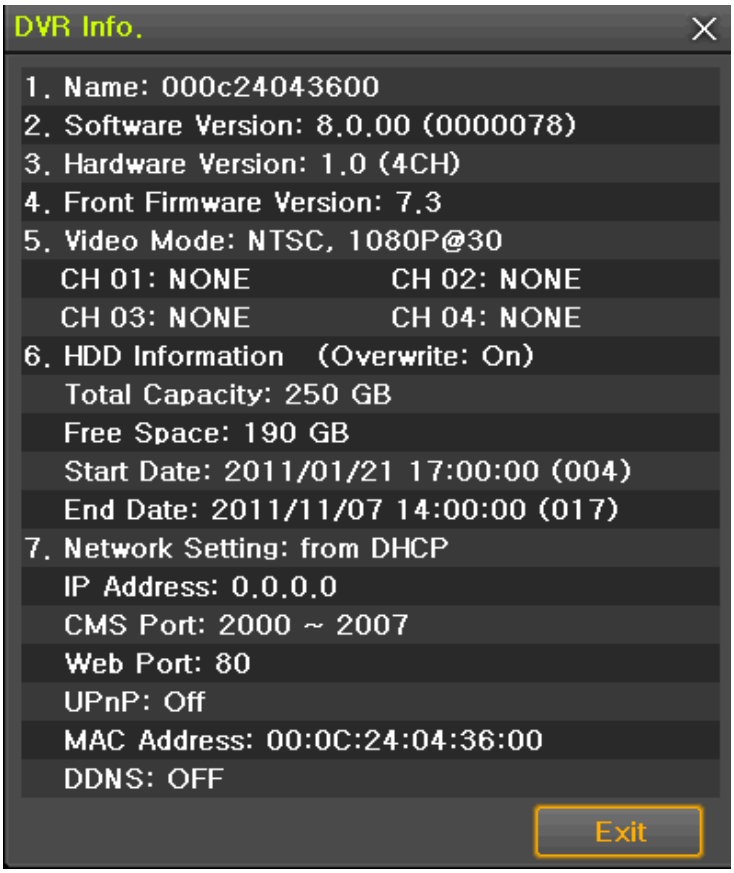
※ Live Display ※	
	Video is not connected or Video is covert
	Audio is set activated
	Audio is set silent
No Signal	Camera has been disconnected
PTZ	The channel for PTZ setup
T1	The channel for PTZ tour1 setup
T2	The channel for PTZ tour2 setup

※ Control Bar※	
①	1Ch display mode
②	4Ch display mode
③	Zoom
④	Auto Sequence
⑤	Date / Time
⑥	HDD Status
⑦	Playback

1-1 6 System Information

① Select **{Menu}** → **{Miscellaneous}** → **{DVR info.}**

② DVR info. Will be displayed as shown below.



[Figure 5-6. DVR Infomation]

1 - 1 7 Display Setup

① Select **{Menu}** → **{Miscellaneous}** → **{Display Setup}**

(1) Camera Title, Control Bar, Button Sound

Set the title of camera and control bar, button sound.

(2) Border Line

Set the border line between channels.

(3) Screen Saver

Set Monitor saver.

(4) Spot & Main Sequence

Set the Duration for Spot and on/off for event.

1-18 Audio, Relay, Spot control

① Select **{Menu}** → **{Miscellaneous}** → **{Control}**

(1) Audio

Setup for Audio channel and mute.

(2) Relay

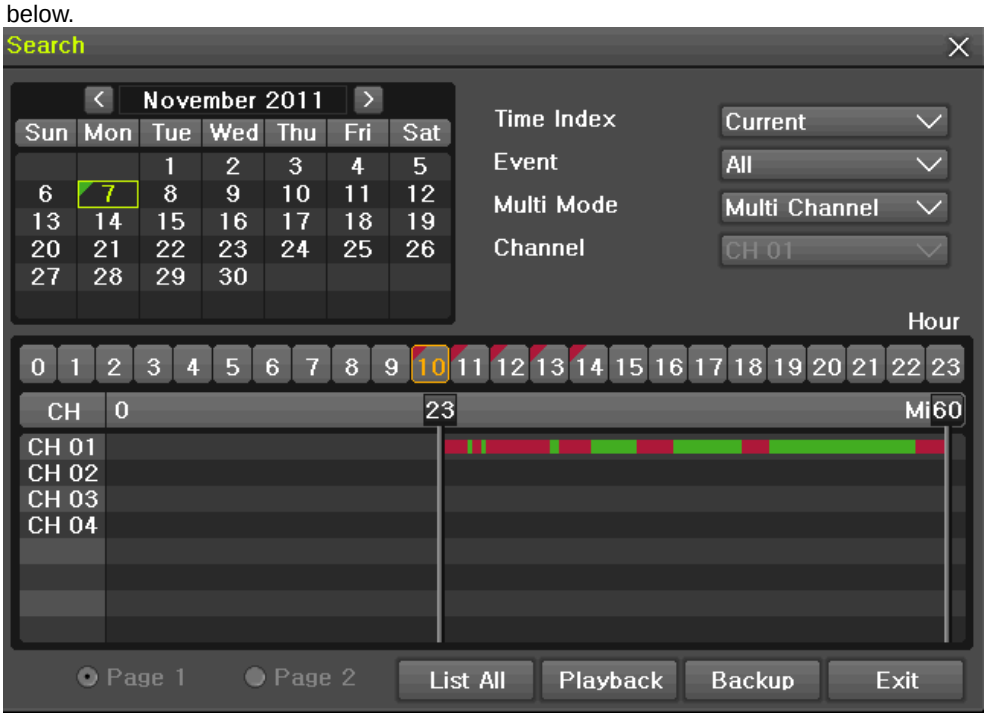
Setup for Reply out or cancellation

1-19 Search

Calendar Search	Search the recording data by year/month/day/time.
Go To The Last	Playback the last recorded data by multi-channel mode.
Go To The First	Playback the first recorded data by multi-channel mode.
Go To the Last Played Time	Playback the last played time by multi-channel mode.

1-1 9-1 Calendar Search

Select {**Menu**} → {**Search**} → {**Calendar Search**} on the live display mode and then a searching window pops up as shown below.



[Figure5-7. Search Window]

	Green	Continues recording is in progress
	Red	Motion recording is in progress
	Blue	Sensor recording is in progress
	Yellow	Audio recording is in progress

1-1 9-2 Time Index

① New folders (directories) are created every time when the time is changed on {Menu} → {Setup} → {Time} → {Date/Time}.

② Many Time Indexes comes out when you select the menu for Time Index on the right side of search mode.

Current	Recorded image files with the current set time.
Old_Number	Recorded image files before the time change.

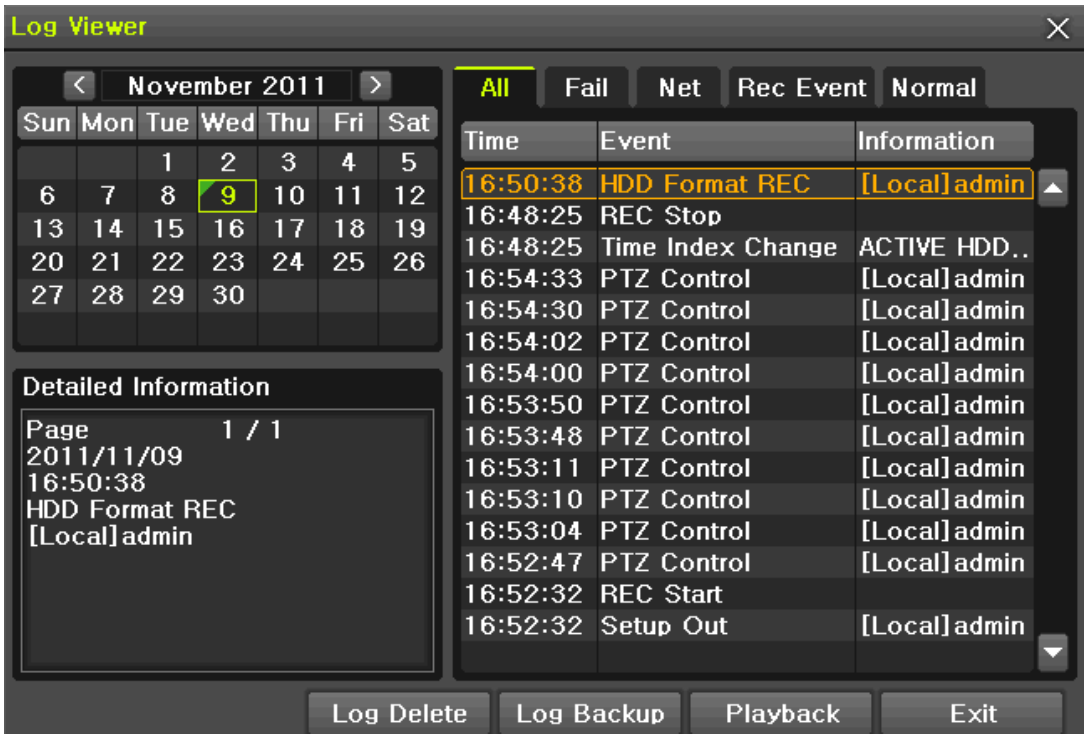
1-1 9-3 List All

Current recording time list is showed regardless how many times system time has been changed.

① All list comes out after selecting **{List All}** on the bottom of search mode.

1-20 Log Viewer

DVR records all Log information over the system operation including Power on/off, System Setup and Network Access. Move to **{Menu}** → **{Miscellaneous}** → **{Log Viewer**} to see the logs.



[Figure 5-8. Log Viewer]

All	Logs related to all system operations.
Fail	Logs related to system operation failures, e.g., signal loss and network connection failure.
Network	Logs related to network operations e.g., network login, network logout, and network live.
Recording Event	Logs related to recording, e.g., motion detection and sensor detection, Audio detection.
General	Logs related to power ON/OFF, file copy/backup failure, setup start/end, playback, and other basic system operations.

1-2 1 Playback

There are three routes **{Live Monitoring}**, **{Search}, {Log Viewer}** to playback on DVR.
On Live display(monitoring), select **{Menu} → {Search} → {playback}.**

[Figure 5-9. Playback Screen]

1-2 1-1 Playback status and Playback Speed Control

[Figure 5-10. Playback Status and Control bar]

Description of the Search Buttons		
Button	**Name**	**Features**
	Forward Play / Fast Forward	x1 → x2 → x4 → x8 → x16 → x32 → x300 → x1
	Forward Frame by Frame	Playback frame-by-frame
	Pause	Pause
	Reverse Frame by Frame	Reverse playback frame by frame
	Reverse Play / Fast Reverse	reverse x1 → x2 → x4 → x8 → x16 → x32 → x300 → x1
LIVE	**LIVE**	Move to the live display(monitoring)

1-2 1-2 Smart Search

This function is for search an image with the object movement at a specific zone as fast as it can. Searching by each channel is available.

1-2 1-3 MULTI TIME

Multi-Time is to play the recorded image of the different time over a certain designated channel. The line up of the recorded image of the different time is the most recent-bottom.

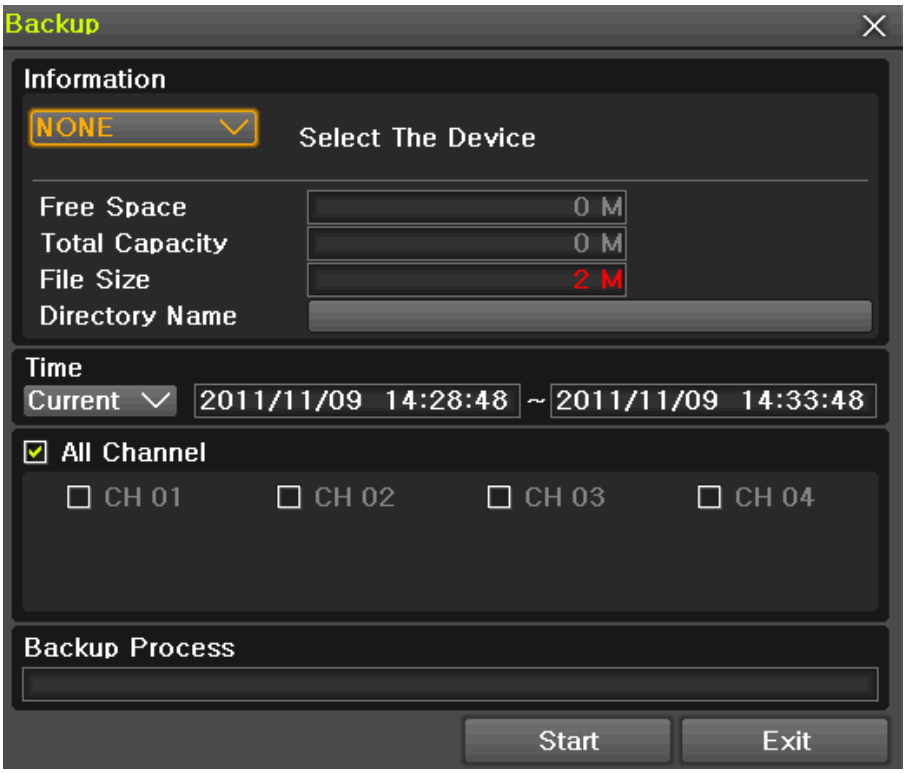
1-2 1-4 MULTI DAY

Multi-Day is to play the recorded image of the different day over a certain designated channel.
The lineup of the recorded image of the different time is the most recent-bottom.

1-2 1-5 Event
Event is to play the recorded image with [All/Motion/Sensor/Audio].

1-2 1-6 Panorama Playback
Playback the certain channel by frame by frame..

1-2 2 Backup
Before backup process, CD/DVD or external HDD, CD, DVD supporting USB2.0 should be connected to the DVR.
Refer to Appendix on the last page of this manual to get information of compatible list.
There are three routes to backup on DVR.



[Figure 5-11. Backup]

① In real-time monitoring mode, select **{Menu} → {Backup} → {Backup}.** The backup menus will then appear.
② Show the free and total space, after selecting backup device.
③ Check the time/date and channel.
④ Backup will be progressing after click the start button.

	If the total size is smaller than backup size, it shows as red and not allowed to backup. If the backup storage device is not formatted, in case the box displaying the size of the file to be backed up is displayed in yellow, and if backup is executed by pressing the Copy (Backup) button, a prompt asking whether to erase the device will appear as shown below. Selecting [YES] causes the storage medium for the selected device to be erased.

1-2 3 Snapshot
The Snapshot function lets the user create a JPG file in live monitoring, playback.
On the live monitoring, Select **{Menu} → {Backup} → {Snapshot}** and then directly move to Shapshot menu.

① Will see the storage selection window. After selecting storage, backup will be done.

1-2 4 Log Backup

All of recorded log data such as Normal/ Recording Event/ Network/ Failure could be backed up.

① Select **{Log Viewer}** → **{Log Backup}** or **{Menu}** → **{Backup}** → **{Log Backup}**.

② Setup after checking device, time and event. .

③ Backup is started after selecting start button.

Log file is text format so the file could be open easily.

1-2 5 Setup Backup

Backup all setup data which is applied to the DVR.

① **Select {Menu}** → **{Backup}** → **{Setup Backup}**.

② After selecting storage, backup will be done.

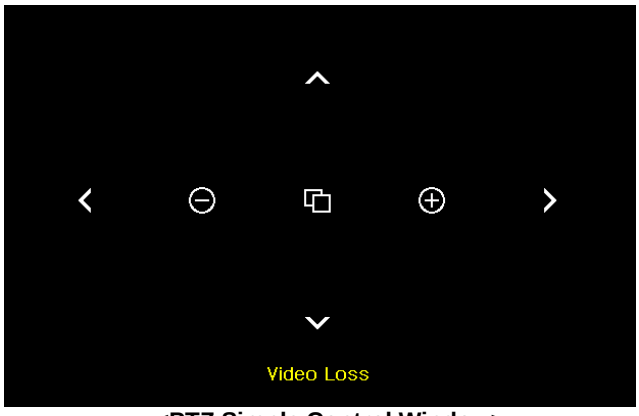
③ The file from Setup Backup can be applied to another DVR with **{Menu}** → **{Setup}** → **{System}** → **{Upgrade}.**

1-2 6 PTZ Camera Control

① **PTZ camera setup should be correct on here {Menu}** → **{Setup}** → **{Definition}** → **{PTZ}.**

② In real-time monitoring mode, select **{Menu}** → **{PTZ Control}**.

③ PTZ Full control window is coming out after selecting MENU button or the right button of the Mouse. If you are okay with PTZ Simple control window, selecting ESC button or the right of the Mouse just after that.



<PTZ Simple Control Window>

<PTZ Full Control Window>

(1) Camera

Select PTZ to be controlled.

(2) Speed

PTZ camera speed is adjustable.

(3) Tour

To use this feature, it should be setup with {Menu} → {Setup} → {PTZ} → {Tour}.

(4) Left,right/up,down/zoom

Control the Left/Right/Up/Down/Zoom of PTZ camera.

(5) Preset

Using Leftl/Rightl/Zoom movement of PTZ Camera, zoom or focus a certain spot of the image by designating the coordinates and move to the designated coordinates quickly.

(6) Home Position Time

If there are no controlling signals to PTZ camera after a certain time, it goes automatically to the Preset No.1 position as Preset No. 1 is designated as Home Position.

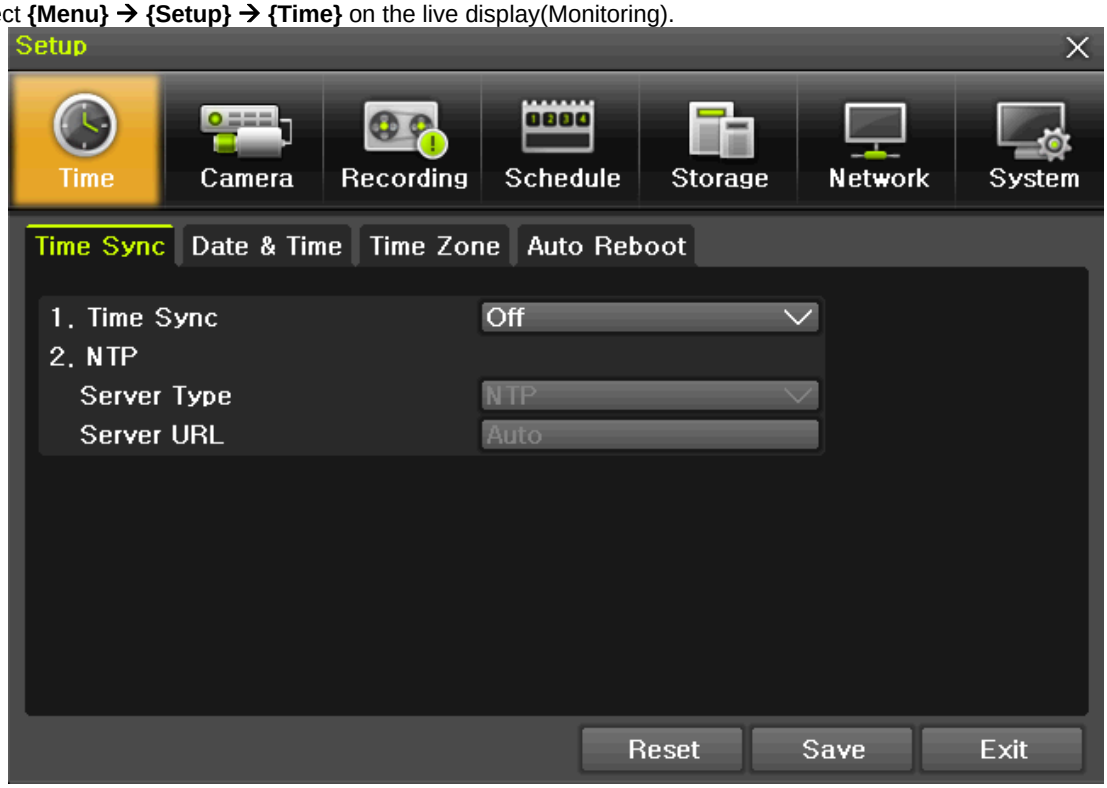
(7) Menu

Control PTZ Menu directly.

Chapter 6. Setup

1-2 7 Time

Select **{Menu}** → **{Setup}** → **{Time}** on the live display(Monitoring).



[Figure 6-12. Date and Time Window]

(1) NTP Sync

Synchronize DVR time with NTP Server time at one time in hour.

(2) Date and Time

Change the system date/time and the time format.

(3) Standard Time Zone

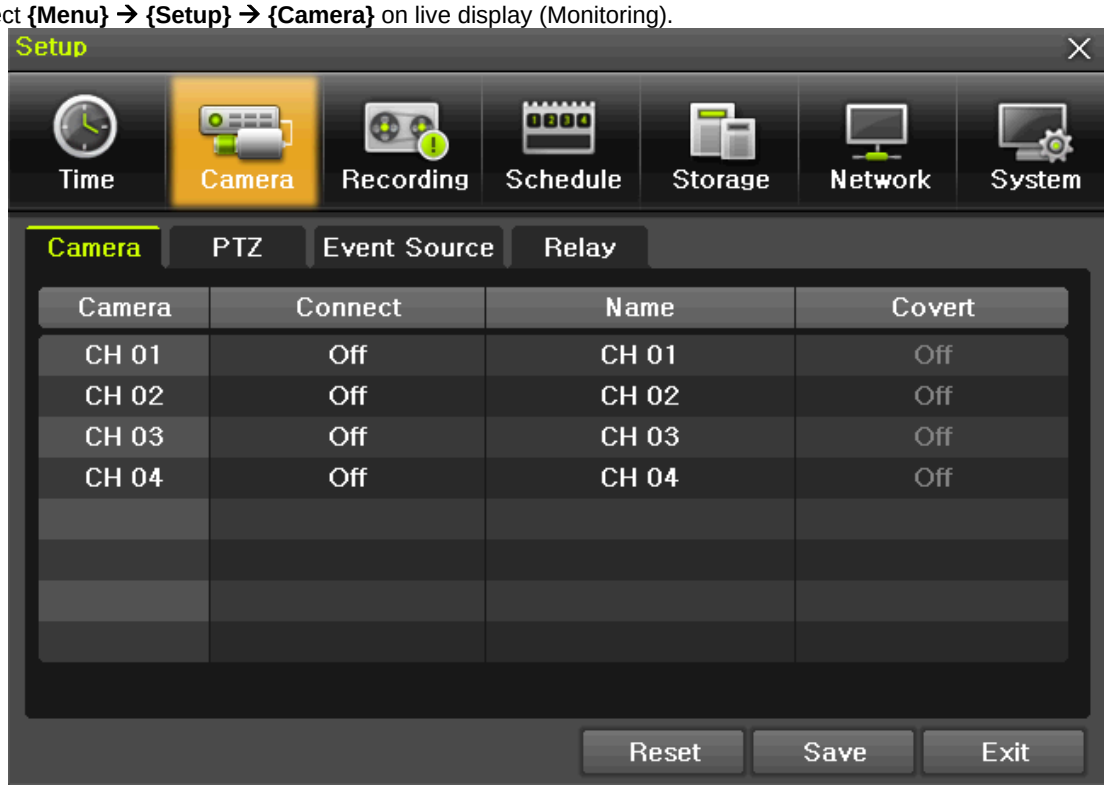
Select {Standard Time Zone}, {Daylight Saving Time}, {Start/End time}.

(4) Auto Rebooting

Select the period for auto rebooting of DVR system.

1-2 8 Camera

Select **{Menu}** → **{Setup}** → **{Camera}** on live display (Monitoring).



[Figure 6-13. Camera Window]

1-2 8-1 Camera

(1) Connect

Set on/off of the camera.

(2) Title

Set the name of each camera up to 20 characters.

(3) Covert

Set the live channel not to be showed for pricy reason.

※ On the live display(Monitoring), it shows as black. But, it keeps recording as setup.

(4) Adjust

Brightness/ Contrast / Hue/ Saturation / Sharpness / Camera

※ it is not allowed to use the Adjust menu for HD channels.

1-2 8-2 PTZ

Set the Tour, Protocol, ID, Baudrate of PTZ camera.

1-2 8-3 Event Source

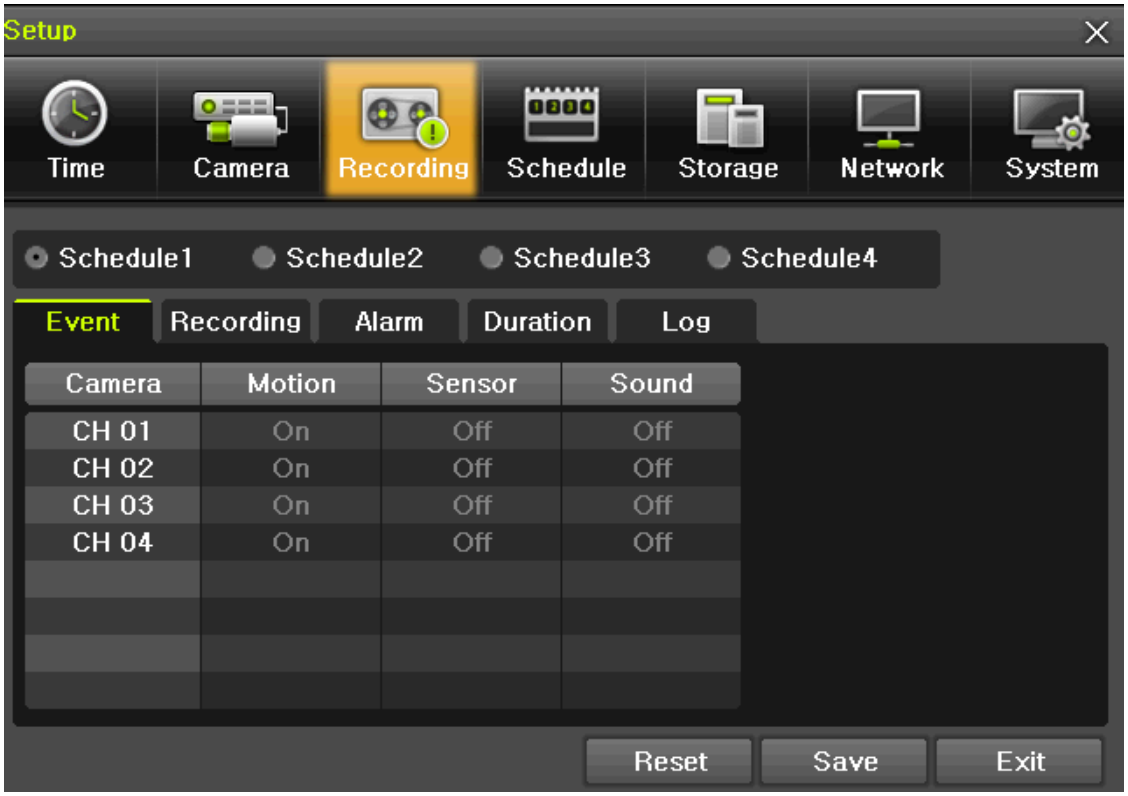
Set the Motion Area, Motion Sensitivity, Sensor Type, Sound Sensitivity.

1-2 8-4 Relay

Set the type of Relay.

1-2 9 Recording

Set recording, system, main features. {menu} → {setup} → {Recording}



[Figure 6-14. Recording Window]

1-2 9-1 schedule (schedule1 - schedule4)

4 different settings can be applied by time and date on schedule table for user convenience. Please go to menu/schedule after setting up schedule1, schedule2, schedule 3, schedule 4 differently.

1-2 9-2 Event

Set the motion, Sensor, Audio.

1-2 9-3 Recording

Set the Resolution, Frame, Quality, Audio.

Resolution	NTSC recording resolution	PAL recording resolution
CIF	352 x 240	352 x 288
2CIF	704 x 240	704 x 288
4CIF	704 x 480	704 x 576
720p	1280 x 720	
1080p	1920 x 1080	

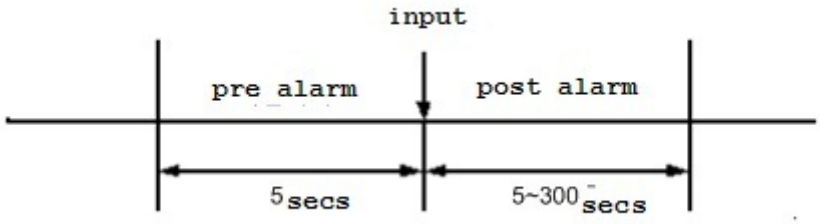
Recording frame rate	
Normal Speed	when record continuously
Event Speed	When record by motion, sensor, audio

1-2 9-4 Alarm

Set the Alarm action Buzzer, PTZ Preset, E-mail, Relay, Spot, Popup and Callback when event comes out.

1-2 9-5 Duration

Pre alarm(On / OFF), post alarm(5sec / 10sec / 15sec / 20sec / 60sec / 150sec / 300sec)



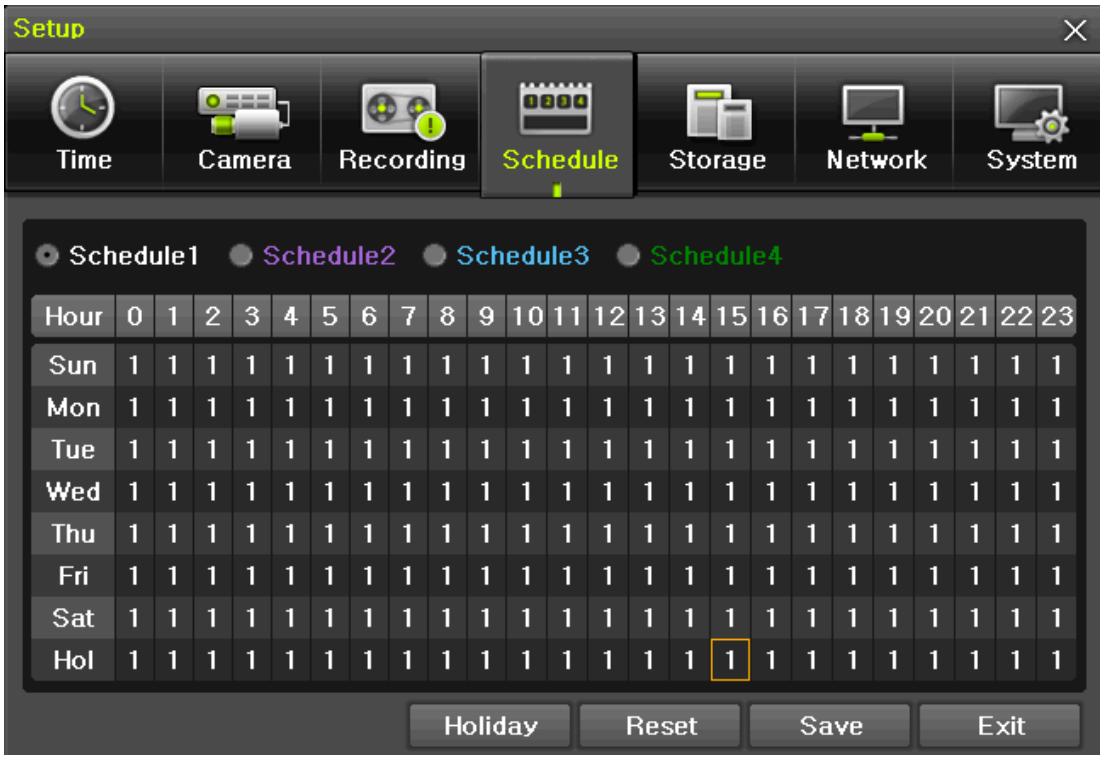
[Figure 6-15. Pre/post alarm]

1-2 9-6 Log

Set On/off of log by motion detection / sensor input / sound detection.

1-3 0 Schedule

Select **{Menu}** → **{Setup}** → **{Schedule} on the live display.**
{Schedule} is used to save the system configuration as data from {**Schedule 1 ~ 4}** and to make a recording based on the system configuration for each day/time zone.



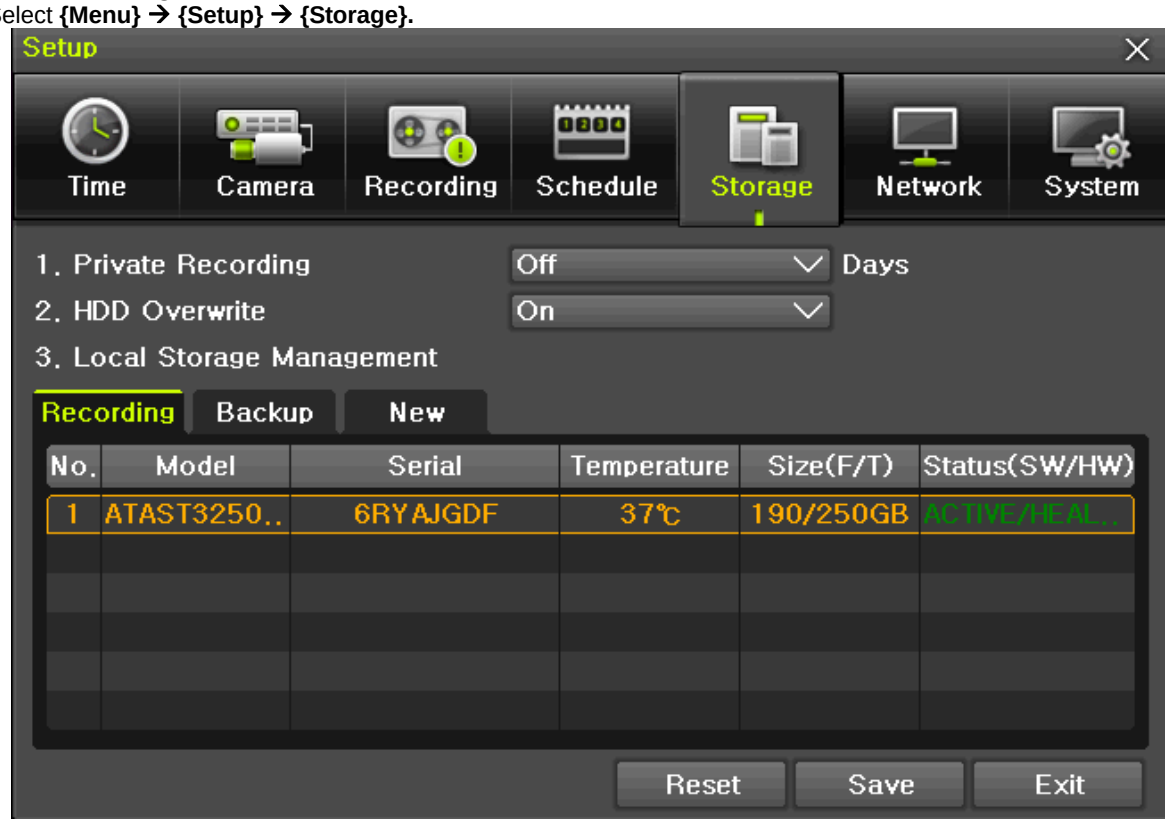
[Figure 6-16. Schedule Window]

1-3 0-1 Holiday setup

Set the Holiday for recording schedule.

1-3 1 Storage

Select **{Menu}** → **{Setup}** → **{Storage}.**



[Figure 6-17. Storage Window]

1-3 1-1 Max. Recording Days

This is to limit the recording days. You can set None/1day/7days/30days/User setting (1-99).

1-3 1-2 HDD Overwrite

Set On/Off for HDD Overwrite.

On	If there is no more hard disk space left, the existing files will be overwritten starting with the oldest.
Off	If there is no more hard disk space left, further recording will not be executed.

1-3 1-3 Local Storage Management

(1) Local Storage Management Function

New	All initially detected storages are displayed as New **Recording Initialize – Changed it for Recording** **Backup Initialize – change it for Backup**
Recording	Storage list for Recording ※ At least, one storage shall be selected as a dedicated storage. Otherwise, the data cannot be stored in real time. **New –** Returns the status of the selected storage device to New **Online -** Changes the selected storage device in online state. **Offline -** Changes the selected storage device in offline state. (Disable to record) **Format –** Format the selected storage. (Available only in Offline.) **Eject -** Separates the selected device completely from the software.
Backup	Storage list for Backup

(2) Configuration of the local storage device

	※ There are three software status types.
Active	Connected to storage or backup device; currently saving the data.
Online	Only connected to storage or backup device.
Offline	Not connected to storage or backup device.

	※ There are three hardware status types.
Healthy	Connected to storage or backup device; functions normally.
Warning	Connected to storage or backup device, but error was detected; in this case, data storing or backup cannot be made (for more information, see the description below).
Fault	Not connected to storage or backup device; cannot perform data saving or backup.

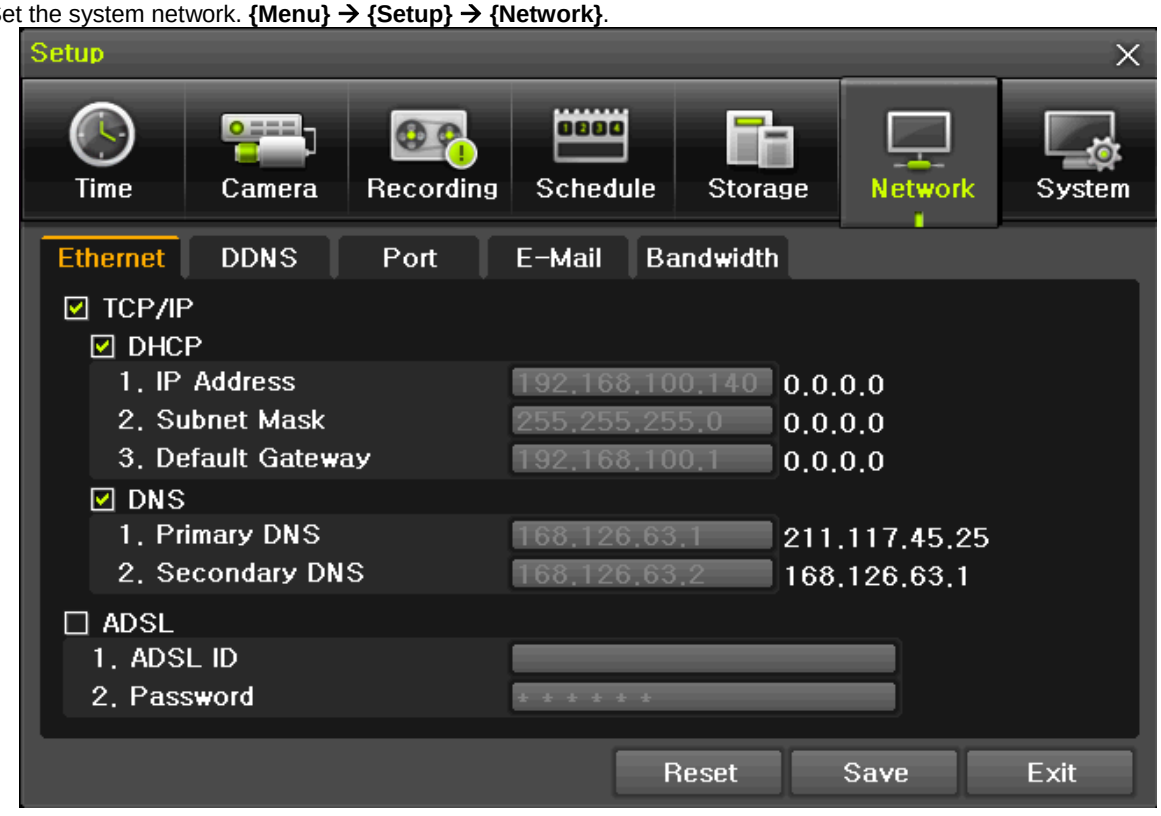
1. **Fault State:** The storage device is completely damaged, and none of the S/W operations can be performed. The fault state is not related to a DVR problem. The DVR has detected the fault and stopped the recording.

2. **Warning State:** The storage device has a physical error that can be corrected by the storage device or by the DVR. If the error is not taken care of, however, the storage device is likely to be damaged (and shift to fault state). Backing up data in the corresponding storage device and replacing the device with a normal one are strongly recommended.

3. If there is an active storage device with a warning or a fault, a message is displayed on the upper left part of the screen.

1-3 2 Network

Set the system network. **{Menu}** → **{Setup}** → **{Network}**.



[Figure 6-18. Ethernet Window]

1-3 2-1 Ethernet
Set the IP, ADSL, Gateway and DNS as above.

1-3 2-2 DDNS
As part of the DNS system, the Dynamic Domain Name System **(DDNS)** service updates the IP addresses of host names in real time and allocates fixed domain names to systems linked to dynamic IP addresses to allow users to use the same DNS name regardless of the changes in the IP address.
It provides dynamic DNS to ensure URL access in the dynamic IP environment.
User can monitor the remote place thru internet with web server functions which is equipped in DVR.

	※ Access to DynDDNS sever(http://www.dyndns.org) and apply for the user account then, register the domain name to use and enter URL. ※ For more information, please access to the sever.

1-3 2-3 Port
Set the port for network.
UPnP function will be available on the selection of On. On UPnP, 'Success' will be popped up on the port registration at Router. Otherwise, 'Failure' will be popped up instead.

1-3 2-4 E-mail
Automatic E-mail transmission service when an event occurs.

1-3 2-5 Bandwidth
This sets up the limit of the bandwidth to be used when bringing the live image, adjust resolution/quality and transmitting the data by using the network.

1-3 2-6 Callback
The signal is transferred to callback server for auto-recording when there happens an event at the site.

1-3 3 System
{Menu} → {Setup} → {System}

[Figure 6-19. System Setup Window]

DVR Name	MAC address for DVR. Available to change whatever user wants.
ID for Key Controller	Set the identify no. of key controller
Users	Adds, edits, or deletes the users who will operate the system.
Admin. Password	Set the password for the Local Admin.
Upgrade	Firmware – Firmware upgrade Setup – Change the setup of DVR
Factory Setup	Initializing it as setup (Except Network setup)
Error Alarm Action	Alarm is to notify system incidents [Video Signal loss/ HDD full/ FAN fail/ HDD fail/ HDD warning] to [Alarm/ E-mail/ Relay01/ System check].
Error Alarm Duration	Set the alarm duration
Menu Time Out	If no input is made in the System Setup menu using the front buttons, remote controller, or mouse, the system automatically shifts to real-time monitoring mode.
Language	Set the system language.

APPENDIX

A/P/P/E/N/D/I/X

(1) Recommended HDD

Type	Size	Capacity	Buffer	RPM
SATA I, II	3.5“ 1, 2 Flat	Max. 2TB	Over 8MB	Over 7200

(2) Recommended PTZ Camera Protocol.

NO	Vendor	Protocol
1	A.D.	SENSORMATIC
2	CHOU	COHU
3	Dongyang	DRX-500
		DY-255
4	DYNACOLOR	DSCP
5	EYE VIEW	EYE VIEW
6	FINE SYSTEM	CRR-1600i/s
7	GE	GE_KARATEL
8	GSP	CYBERSCAN_1
9	HITRON	FASTRAX2
10	HONEYWELL	HSDN-251
11	LG	LG_MULTIX,
		LG_OLD
12	MIKAMI	MIKAMI
13	ORIENTAL	ORX-1000
14	PANASONIC	WVCS854
15	PELCO	PELCO – D
		PELCO - P
16	PHILIPS	PHILIPS
17	PROLINE	PROLINE_UK
18	RIFATRON	RIFATRON
19	SAMSUNG TECHWIN	SPD-1600
		SCC641
20	SUNJIN	SUNJIN
21	VICON	VICON
22	YOKO	YOKO

(3) Recommended USB2.0 Device

USB2.0 Device	Media	File System
Memory Stick	Flash Type	FAT32
2.5’’ Portable USB HDD	HDD Type	FAT32
CD	CD R, R/W	ISO9660
DVD	DVD +R, +R/W	ISO9660